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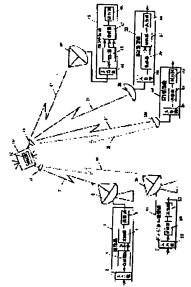
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## (54) TRANSMITTER

## (57)Abstract:

PURPOSE: To provide the transmission reception system in which a problem that a transmission information quantity cannot be increased is solved when the frequency band is limited in the transmitter sending a digital signal and much more information is sent within the same frequency band. CONSTITUTION: The transmitter 1 uses a modulator 4 implementing m-value QAM modulation to allocate data of n-value of a 1st data string to a signal point group formed by grouping signal points on a signal space diagram comprising the 1st data string of n-value and 2nd and 3rd data strings of p-value and to send the modified m-value QAM modulation signal. A 1st receiver 23 uses a demodulator 25 to demodulate the 1st data string of n-value, a 2nd receiver 33 demodulates the 1st data string and the 2nd data string, and a 3rd receiver 43 demodulates the 1st data string, and data string and the 3rd data string and



the 3rd data string, and then even the receiver having only a demodulation capability of n-value in the case of n<m when the m-value modified multi-value modulation wave demodulates the data of the 1st data string of n-value in the transmitter.

## LEGAL STATUS

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